

# Agriview

## Pastures Update

PAGE 10



Plant breeders' rights | PAGE 4

Managing grain for longer-term storage | PAGE 8

New rabies program | PAGE 13



# Minister's Message



*Lyle Stewart*

With the arrival of spring and warm weather, the agriculture industry kicks into high gear. After the long, cold winter, producers are looking forward to seeding and moving cattle out to pasture.

As we approach seeding, many farmers still have last year's crop in the bin due to the ongoing backlog in grain movement. This has been a top priority for our government and we have been actively working to improve grain transportation since May 2013. We have continued to meet with grain companies, railways, the federal government, producers and all stakeholders to work to resolve this issue. While we are pleased with the federal government's proposed emergency legislation and believe it is a step in the right direction, we know that more work needs to be done to fully address this issue. We will continue to push for a transportation system that holds all players along the value chain accountable, ensuring that this type of situation never happens again. This will continue to be a priority for me and our entire government.

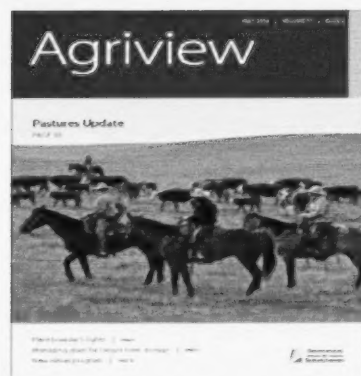
While there have been significant grain transportation challenges this winter, it has been one of optimism and growth for our livestock industry due to record prices and lower feed costs. The *Saskatchewan Plan for Growth* includes a goal to grow our livestock herd. In consultation with industry, we have developed a target to increase livestock farm cash receipts by 25 per cent, from \$1.69 billion in 2012 to \$2 billion by 2020. Livestock farm cash receipts have never exceeded \$2 billion, but we believe this goal is attainable and sustainable.

**The Saskatchewan Plan  
for Growth includes  
a goal to grow our  
livestock herd.**

To help achieve this goal and provide improved risk management for cattle and hog producers, we recently announced price insurance is now available through the Western Livestock Price Insurance Program. The program insures producers against an unexpected drop in price over a defined period of time. Producers pay a premium to receive forward price coverage and if the market price falls below the coverage price, the producer will receive a payment. Producers can purchase price insurance options for their calves, fed cattle, feeder cattle and hogs. I would encourage all producers to consider this program.

In closing, I would like to thank all of the farmers and ranchers whose hard work continues to drive our economy. I wish you all the best for a safe and successful growing season.

# Table of Contents



Riders trailing cow-calf pairs across native prairie grassland near Maple Creek, SK.

Photo credit: Heather S. Belerbach.

For information about the Federal Community Pasture Transition Program, turn to page 10.

AGRIVIEW is published by the Communications Branch of Saskatchewan Agriculture for Saskatchewan farmers, ranchers and farm and food organizations. For more information, call 306-787-5160 or email [agriview@gov.sk.ca](mailto:agriview@gov.sk.ca). To view this publication online, visit [www.agriculture.gov.sk.ca/programs-services](http://www.agriculture.gov.sk.ca/programs-services).

## CROPS

UPOV 91: What you need to know	4
Swede midge: a new pest in canola	4
Using fertigation to apply crop nutrients	5
Canola plant populations and reseedling	5
Tips for post-emergent fertilizer applications	6
Variable rate fertilizer applications	6
Saskatchewan's wine industry keeps growing	7
Using diverse cover crops improves forage quality and re-cropping	7
Protect your cattle from ergot poisoning	8
Storing grains for a longer term	8
Profile: Saskatchewan Pulse Growers	9
Thousand kernel weight adds precision to your seeding	9

## LIVESTOCK

Horse health: focus on Equine Infectious Anemia and West Nile Virus	10
Communication the key to successful federal (PFRA) community pasture transition	10
Program launched to subsidize cost of commercial colostrum pasteurizers	11
Reducing injury hazards is first step in preventing footrot	11

## RESEARCH

Controlling hydrogen sulfide emissions from swine operations	12
--	----

## PROGRAMS & SERVICES

Saskatchewan launches provincial rabies program	13
Crop Protection Lab: Helping producers grow healthier crops	13
Insect monitoring programs in 2014	14
SCIC evolving with technology	14
Producer groups receive funding to implement on-farm food safety programming	15

## EVENTS CALENDAR

Calendar	16
----------	----

## PROGRAMS & SERVICES

Leading by example	16
--------------------	----

# UPOV 91: What you need to know



Mitchell Japp, M.Sc., P.Ag.  
Provincial Specialist, Cereal Crops  
Crops and Irrigation Branch

The federal government is making changes to the *Plant Breeders' Rights Act* with Bill C-18 to make Canada compliant with UPOV'91. It is important that producers have a clear understanding of what UPOV'91 will mean for them.

UPOV is the acronym for the International Union for the Protection of New Varieties and 91 refers to the year in which the last UPOV convention was held. Canada's *Plant Breeders' Rights Act* is based upon UPOV'78. Bill C-18, the *Agriculture Growth Act*, will make Canada's *Plant Breeders' Rights Act* compliant with UPOV'91.

## What it means to producers:

- Access to new and improved plant varieties, improving the bottom line. Enhanced protection under UPOV'91 will encourage the release of new varieties from other countries (once registered in Canada), as well as stimulate increased investments in variety development here in Canada.
- Explicit ability to save seed from your crops, for your own use on your farm.
- No negative impacts for those who legitimately purchase seed.

## What it does not mean to producers:

- End point royalties. Bill C-18 does not include automatic annual end point royalties on the use of seed. It can accommodate an end point royalty system in the future, pending consultation.
- A requirement to buy new seed each year. Bill C-18 proposes the specific inclusion of Farmer's Privilege (UPOV 91 terminology), which is an exception to the breeder's right and allows for growing, saving, storing and cleaning seed for farmer's own use.
- Development of GMO crops. UPOV'91 does not discriminate on the method used to breed a new variety. Both conventional and GM methods are eligible for protection under Plant Breeders' Rights (PBR). However, developers of GMO crops tend to protect their transgenic traits under patent.
- Cascading rights. Similar to the current system of protection, a breeder can collect a royalty once on the sale of a PBR protected variety. However, if a breeder has been denied a reasonable opportunity to collect on the seed (e.g. illegal brown bag sales), under UPOV 91 the breeder can exercise rights on the harvested material (e.g. grain), which includes seeking compensation.
- Patent level protection under PBR. PBR is a form of intellectual property protection specifically designed to stimulate investment and innovation in the breeding of new plant varieties for the benefit of society. It also balances the interests of the breeder and farmer. Higher life forms (e.g. plants and animals) cannot be protected under patents, but specific traits and cells can be. ■

# Swede midge: a new pest in canola



Scott Hartley, P.Ag.  
Provincial Specialist, Insect/Vertebrate Pest Management  
Crops and Irrigation Branch



Swede midge larvae in canola floret.

Swede midge is a new insect pest affecting canola in northeastern Saskatchewan. Swede midge larvae were found in misshapen canola flowers in the Nipawin area in 2012 and in several fields in the northeast in 2013.

Swede midge adult is a small fly (1.5 to 2 mm in length), similar in size to the wheat midge. Both are members of the same fly family but rather than being orange like the wheat

midge, the swede midge is a tan or brown colour. It is also difficult to distinguish from other, often abundant, midges that do not affect canola.

Damage to canola is a result of swede midge larvae feeding on plant tissue. These larvae are a pale, creamy yellow colour and have the ability to "jump" or spring away from contact. Swede midge larvae feed only on cruciferous plants, including field crops such as canola and vegetable crops such as cabbage, broccoli and cauliflower.

There appears to be three overlapping generations of swede midge in Saskatchewan. The midge overwinter in the soil, with the first spring adults

appearing in June, depending on climatic conditions. In Saskatchewan, damage to canola plants includes aborted flowers or flowers with petals apparently fused together, and misshapen, stunted or sometimes missing pods. No pods were formed from florets affected by the larval infestations.

Although there are products registered for control of swede midge in canola, there are no reliable recommendations for timing of control measures targeting the adult flies due to the overlapping generations and short lifespan. In addition, unlike wheat midge, the swede midge flies are active during the day. Insecticide application is not recommended when canola is in flower due to the serious impact on pollinators such as honey bees. The concealed nature of larval feeding within the florets protects this life stage from insecticidal control.

In 2013, the Saskatchewan swede midge survey indicated that the distribution of this pest has expanded compared to 2012. It is known that higher moisture conditions favour the midge. Early seeding and increased seeding rates may alleviate some effect of the swede midge in canola. Further research on this pest in Saskatchewan is required to determine distribution, biology and potential management options. ■

FOR  
MORE  
INFO

Contact Scott Hartley, Provincial Specialist, Insect/Vertebrate Pest Management, at 306-787-4669 or [scott.hartley@gov.sk.ca](mailto:scott.hartley@gov.sk.ca).

## Flea Beetle Control in 2014

In the fall of 2013, there were several reports of large numbers of flea beetles congregating in canola fields. Since these are the over-wintering beetles that cause the damage to seedlings in the spring, this is an indicator that flea beetles could be a problem in 2014. Flea beetles can be a concern for canola producers early in the spring, particularly with young seedlings and slow growing conditions. Seed treatments that include an insecticide for flea beetle control are effective only for a limited period of time. The period of protection will vary depending on the product and climatic conditions. Research has shown that neonicotinoid class seed treatments tend to provide the best control of flea beetles under warm, dry soil conditions. The inclusion of new insecticide seed treatments containing a different class of chemistry (diamide class), in combination with the neonicotinoids is intended to provide better protection for canola under cooler, moist conditions. ■

# Using fertigation to apply crop nutrients



Jeff Ewen, AAgr  
Irrigation Agrologist  
Crops and Irrigation Branch

Fertigation is the injection of liquid fertilizer with the water of an irrigation system, which can save a producer both time and money. Fertigation improves seeding efficiency by reducing the quantity of fertilizer handled at seeding. Delaying application on coarse textured soils can reduce leaching. This can be a significant risk if applying high rates of mobile nutrients such as nitrate nitrogen prior to nutrient uptake by a growing crop. Fertigation removes the operator from the field and damages less crop compared to a mechanical spreading application. Applying nutrients with water allows the nutrients to be carried to the active rooting zone, where the plant can absorb the nutrients. Over-irrigation or a heavy rainfall, however, can leach the nutrients below the root zone or promote runoff from the field. Irrigation scheduling to track crop water use and to manage application timing for fertigation is recommended.

Generally only 20 to 30 per cent of a crop's nitrogen requirement should be applied through fertigation. Research has shown that cereal crops take up 75 per cent of their nitrogen requirement by the four- to five-leaf stage. Keep in mind that seven to 10 days are required to convert the majority of the urea and ammonium nitrogen in 28-0-0 to nitrate-nitrogen for uptake by the crop.

In 2014, an Irrigation Crop Diversification Corporation (ICDC) demonstration will compare application timings for fertigation on irrigated durum. The objective of this demonstration is to determine the best timing of fertigation to produce the highest yield and protein. Soil samples before seeding and after harvest will be taken. Early boot leaf tissue from each application will be analyzed to determine nutrient content in the plant. At harvest, yield will be determined with a calibrated yield monitor to produce a yield map. Yields will be verified with a weigh wagon. Grain protein and quality will be tested for each application treatment. ■

FOR  
MORE  
INFO

Contact Jeff Ewen, Provincial Irrigation Agrologist, at 306-867-5512 or [jeff.ewen@gov.sk.ca](mailto:jeff.ewen@gov.sk.ca).



# Canola plant populations and reseeding



Sherrilyn Phelps, MSc, PAg, CCA  
Regional Crops Specialist, North Battleford  
Regional Services Branch

Correct canola plant populations are critical for maximizing yields. A recent study funded by SaskCanola and coordinated by the Western Applied Research Corporation (WARC) at Scott, found that across all site years, canola yields declined when plant populations fell below 28 plants per square metre. This project was a small-plot research trial whereby herbicide timing, fertility, pest management and harvest timing were all optimized. Other research suggests that populations below 40 to 45 plants per square metre have higher risk for yield loss under field conditions. Saskatchewan Crop Insurance Corporation (SCIC) also considers a canola crop established when it is above 40 plants per square metre. Therefore, producers should use 40 plants per square metre as the minimum population desired in a field.

This does not mean producers should target 40 plants per square metre at seeding time. The Canola Council of Canada currently recommends targeting 70 to 100 plants per square metre to allow for unforeseen losses. Using the average canola emergence rate of 40 to 60 per cent, the

minimum target seeding rates should be 116 to 175 seeds per square metre. The emergence rates can vary tremendously and are influenced by various factors such as seed quality, seeding depth, soil temperature, soil moisture, amount of seed-placed fertilizer, wind speed, presence of disease and insects as well as climatic factors such as frost. Seeding into warm moist soil at a shallow depth and with minimal seed-placed fertilizer can provide optimal emergence. Adding stress can decrease the emergence rate and less-than-ideal plant populations can result.

Hybrid canola is very flexible or "plastic" as it compensates for low plant populations by increasing the branches and pods per plant. As the canola plant gets bigger the maturity is delayed and risk of green seed increases. Besides yield loss, quality should be considered when calculating the economics of reseeding. SCIC considers a canola crop not established below 12 plants per square metre. However, WARC found that at 12 plants per square metre canola was still able to achieve 80 per cent maximum yield. Once again, crop uniformity, ability to control weeds and maturity must all be taken into account when making decisions to reseed or not to reseed. ■

FOR  
MORE  
INFO

Contact your Regional Crop Specialist;  
Call the Agriculture Knowledge Centre at 1-866-457-2377; or  
Visit the Western Applied Research Corporation website,  
[www.westernappliedresearch.com](http://www.westernappliedresearch.com), for more research results.

# Tips for post-emergent fertilizer applications



John Ippolito, PAg  
Regional Crops Specialist, Kindersley  
Regional Services Branch

Post emergent fertilizer applications are a means to take advantage of improved growing conditions or to remedy deficiencies that have occurred. As shown in the accompanying chart, most of the nutrient uptake occurs early in the growing season. As a result, it is best to ensure that the majority of the nutrient requirements are applied prior to or at the time of seeding.

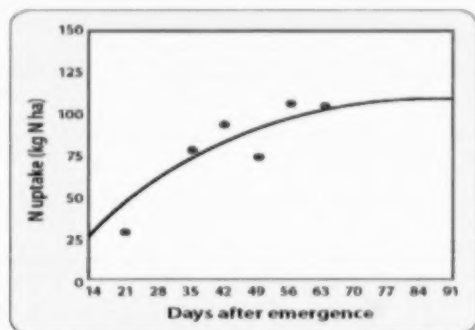


Figure 1 – Nitrogen uptake in cereals in relation to days from emergence (Mahli et al., 2004).

Timing of application is critical to be effective in increasing yields and must be done prior to the time of high nutrient demand. For cereals this would be prior to the six leaf stage. Fertilizer applications later in the growing season are more likely to increase protein content than yields. Canola has a similar timing requirement of the four- to six leaf stage to ensure uptake in time to increase yield.

Products used for post-emergent nitrogen applications will be urea or urea ammonium nitrate (UAN). Broadcast urea is susceptible to losses in the absence of rain shortly after application. The addition of a urease inhibitor can slow the conversion to ammonia for up to two weeks and reduce the potential for losses.

Dribble-banded UAN can be used with less susceptibility to losses for a period after application. UAN should not be applied as a foliar application as leaf burn is a possibility and uptake through the foliage is not very efficient.

Ammonium sulphate formulations would be the appropriate products to use for correction of sulphur deficiencies in canola. These products can be applied as broadcast dry products or as dribble-banded liquid formulations. The nitrogen in these forms is less susceptible to losses and there is no danger of losing the sulphur. Applications for canola are normally in the area of 20 lb./ac for nitrogen and 10 lb./ac for sulphur.

Post-emergent fertilizer applications provide an opportunity to take advantage of improved conditions. These are best used in conjunction with evidence of visible deficiencies or tissue tests indicating a need to increase available nutrients. ■

FOR  
MORE  
INFO

Refer to the factsheets *Nitrogen Fertilization in Crop Production* and *Sulphur Fertilization in Crop Production* on the Saskatchewan Agriculture website at [www.agriculture.gov.sk.ca](http://www.agriculture.gov.sk.ca).

## Variable rate fertilizer applications

John Ippolito, PAg  
Regional Crops Specialist, Kindersley  
Regional Services Branch

There is increasing interest in variable rate fertilizer applications which has resulted in many different questions on how to get started. There are questions on what methods should be used to determine application zones and whether or not there is a net economic benefit from using variable rate compared to uniform fertilizer applications.

Yield maps are a good tool to use in identifying high and low-yielding portions of the field, but they are unlikely to differentiate well between average to low-yielding areas. Ensuring accuracy and consistency of yield map data is one of the biggest challenges, and it is important to fully understand the monitoring equipment and how to calibrate it properly.

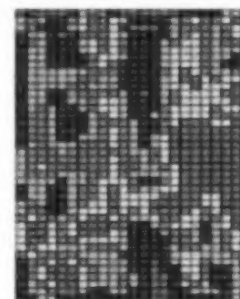
Soil variability and its ability to supply water and nutrients will significantly impact crop yields. Initial work in mapping this variability can be accomplished through the use of soil survey maps, topography and farmer knowledge. These will provide baseline information but more refined data can be obtained through tools such as electrical conductivity mapping.

Topography maps can be generated while collecting harvest yield data. These maps can be useful in providing some indicators of soil moisture and nutrient supply based on slope position.

Use of satellite imagery is becoming more common and is a very useful tool in gathering several years of productivity information very quickly without actually collecting the yield data each year. Looking for common areas of high and low productivity from satellite imagery and combining that with existing yield data can provide a lot of information on variability.

Accurate soil samples within each zone are required to confirm fertility levels and assist in development of fertilizer application prescriptions for each zone. When mapping initially, producers may wish to use individual samples rather than composites from larger management zones. This will help verify that patterns showing up in other data layers are consistently related to soil fertility that can be managed.

Producers interested in using variable rate fertilizer applications may wish to concentrate on a couple of fields with some variability that warrants management. The next step is to decide on the data that will be used, develop a plan for using it and, finally, start data collection. In the beginning, producers may want to keep things simple by limiting management zones to three or four. Also be sure to include a uniform fertilizer rate treatment in the field, so that the results between the two fertilization methods can be compared at the end of the growing season. This is essential in helping producers answer the questions: "Does this generate a net economic benefit?" and "Were the prescribed fertilizer applications accurate?" ■



Zones  
1  
2  
3  
4  
5

FOR  
MORE  
INFO

Refer to the *Variable Rate Treatments* factsheet at [www.agriculture.gov.sk.ca/Soils\\_Fertility\\_Nutrients](http://www.agriculture.gov.sk.ca/Soils_Fertility_Nutrients).

# Saskatchewan's wine industry keeps growing



Forrest Scharf, PAg  
Provincial Specialist, Fruit Crops  
Crops and Irrigation Branch



Construction of Riverlot Orchards Winery began in 2013.

The alcoholic beverage industry in Saskatchewan has been diversifying and expanding. In addition to fruit wines, there are now hard ciders and liqueurs being made from Saskatchewan grown fruit.

An addition to the wine tourism industry has been developed west of Saint Louis on grid 782 that follows the South Saskatchewan River towards Batoche National Historic Site. The business, called Riverlot Orchards Winery, is owned by Eric and Irina Kotelko. The business model featuring a location close to a national historic site is similar to Cypress Hills Vineyard & Winery which is located near Ft. Walsh National Historic Site and has proven to be a successful tourism destination.

Saint Louis is easily accessed from Highway #2, and will soon feature a new bridge. The winery's wheel-chair-accessible river view setting, coupled with a castle-themed bistro nestled in seven acres of fruit crops, will be sure to add charm and interest to that region of the province. The grand opening of the bistro will occur in June of this year. Irina Kotelko is originally from Belarus, and a lot of the food offered at the bistro will reflect European culinary sophistication.

The fruit wines crafted on-site are all derived from the fruit grown in the orchard.

Riverlot Orchards grows raspberries, strawberries, dwarf sour cherries, chokecherries, edible honeysuckle and 15 varieties of plum. Many of the varieties used were developed by the University of Saskatchewan Fruit Breeding Program. The orchard also grows "Ruby Red" rhubarb which creates a delicate light-pink wine. The wines are priced from \$18.00 to \$20.00 for standard 750 ml bottles and their flavours are easily identifiable as corresponding with the species of fruit. A fortified honeysuckle beverage that is 20 per cent alcohol by volume is also offered at \$30.00 for 375 ml.

Visit some of Saskatchewan's wine and spirit producers at:

- [www.livingskywinery.com](http://www.livingskywinery.com)
- [www.luckybastard.ca](http://www.luckybastard.ca)
- [www.facebook.com/pages/Riverlot-Orchards-Winery/1407860229428746](https://www.facebook.com/pages/Riverlot-Orchards-Winery/1407860229428746)
- [www.cypresshillswinery.com](http://www.cypresshillswinery.com) ■

FOR  
MORE  
INFO

Contact Forrest Scharf, Provincial Specialist, Fruit Crops,  
at 306-787-4666 or [forrest.scharf@gov.sk.ca](mailto:forrest.scharf@gov.sk.ca).

## Using diverse cover crops improves forage quality and re-cropping



Trevor Lennox, MAg, PAg  
Regional Forage Specialist, Swift Current  
Regional Services Branch

There has been some interest in recent years in the use of diverse cover crops to improve soil health. This interest led to an ADOPT demonstration project at Swift Current by the Southwest Forage Association to see if there were any merits to this practice.

In 2012, five different cover crop options (12-species mix, six-species mix, two-radish variety mix and one species each of oats and pea) were demonstrated on land that had been in perennial forage production the year previous. The crops were seeded on June 28 and grazed from September 4 to 18. All of the cover crop types produced between two to 2.6 tons/ac of dry matter. Cow/calf pairs grazed the standing material and no livestock health issues were observed while grazing. The cattle were not pressured to clean up the forage material, as the purpose of the project was to leave some material on the surface as 'soil armour' to protect the soil. Of all the cover crop types, the cattle grazed the pea species the least when given free choice of which plot to graze. In terms of forage quality at the time of grazing, the oat species had the lowest protein value, whereas the more diverse mixtures had the highest protein values.



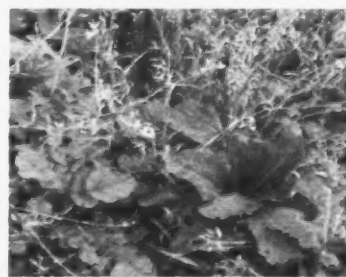
Mixture containing oats, peas and forage rape in 2013.

In 2013, peas and wheat were seeded across the previous year's cover crop plots to see if there were any re-cropping benefits to the cover crops. In terms of forage production, re-cropping on the 12 species mixture produced the highest yields, while re-cropping on the radish only mixture produced the lowest forage biomass. In terms of grain yields, re-cropping on the field peas produced the highest yield for both the pea and wheat.

In summary, this project did observe improved forage quality when grazing diverse annual forage mixtures in the fall. This study also verified that peas were a good option in a crop rotation due to their

re-cropping benefits. This study did not see any benefit to using the radish cover crop mixture as succeeding crop yields were lower on these plots, and also the radishes had issues with volunteering the next year.

Looking to the future, the Southwest Forage Association is currently in the planning stages to hold a "Soil Health Day with Jill Clapperton" in mid July. This would be of interest to local producers looking to improve their knowledge of soil biological health. ■



A diverse forage mixture in 2012.

FOR  
MORE  
INFO

Contact Trevor Lennox, Regional Forage Specialist, at 306-778-8294 or [trevor.lennox@gov.sk.ca](mailto:trevor.lennox@gov.sk.ca).

# Protect your cattle from ergot poisoning



Bryan Doig, PAg  
Provincial Feeds/Regional Forage Specialist  
Regional Services, North Battleford

Ergot has been found in many areas of Western Canada and has been increasing in occurrence since the 1990s. With the adoption of direct seeding and reduced tillage, the ergot bodies or sclerotia remain on the soil surface and are a source of infection to cereal crops the following year. Cool, wet weather during the flowering stage increase the levels of infection.

Ergot contains approximately 40 alkaloids, seven of which cause significant production problems and even death in livestock consuming infected grain. Clinical symptoms of poisoning include impaired circulation and gangrene of extremities. At high enough levels, the back hooves of cattle will slough off. In cold conditions, tails, ears and teats will freeze and fall off. Nervous convulsions and paralysis of the respiratory system can also occur which often leads to death. It also causes abortion.

With no visible symptoms, the alkaloids inhibit the production of prolactin, the hormone that stimulates milk production. One incidence of poisoning reduces milk output for the balance of the lactation period. This results in calves with reduced weaning weights and can seriously impact the level of milk production.

Currently, the recommended safe level is one ergot body in 1,000 kernels (0.1 per cent by weight) if feed accounts for 100 per cent of the diet. There have been incidents of dead cattle that had consumed 0.04 per cent ergot by weight in the total ration. New research will be addressing current recommendations. Producers are encouraged to exercise caution when feeding ergot contaminated grain. Heat does not destroy the alkaloid activity. Pelleted feeds and distillers dried grains with solubles can contain active alkaloids if ergot was present in the parent material.

Cereal silage, greenfeed and most grasses can also contain ergot bodies. Consider having feed tests performed if ergot is present in the heads of the crop. There are several laboratories that can quickly and accurately test the levels of the alkaloids. The results of the analyses can be used to make safe feeding recommendations. ■



*Claviceps purpurea* – ergot sclerotia with developed capitula or fruiting bodies that release ascospores, spreading the disease to cereal crops and grasses.

FOR  
MORE  
INFO

Contact Bryan Doig, Provincial Feeds/Regional Forage Specialist, at 306-446-7477 or [bryan.doig@gov.sk.ca](mailto:bryan.doig@gov.sk.ca).

## Storing grains for a longer term

John Ippolito, PAg  
Regional Crops Specialist, Kindersley  
Regional Services Branch

Due to transportation issues, there may be a need to store some of the 2013 crop through a portion of this summer. Since the majority of the crop was harvested in a dry, mature condition, this should present few problems for long-term storage.

Proper storage involves maintaining the products at an appropriate combination of moisture content and temperature. Figures 1 and 2 show the safe storage times for canola and cereals based on the combination of moisture content and temperature.

Moisture migration in the stored grain can occur whenever there are significant differences between outside air temperatures and grain temperatures for a prolonged period. During the early winter months, grain must normally be cooled to temperatures similar to the outside air.

The opposite occurs in the spring when an increase in outside air temperatures relative to grain temperatures can cause a reversal of the moisture migration.

There are several best management practices that producers should consider for long-term storage. In the case of canola, store the grain with a moisture content of less than eight per cent. As shown in Figure 3 this grain should store well even at temperatures of 10 to 12 C. Next, it is important to remove one to two loads of canola; this will come from the core of the bin where problems are likely to start. Starting in April, use aeration to warm the grain in stages. The goal should be to reach a grain temperature of 10 C. During the summer months, continue to monitor the grain and occasionally run the fans when outside air temperatures are lower than the grain temperature. ■

FOR  
MORE  
INFO

Visit [www.agriculture.gov.sk.ca/crops](http://www.agriculture.gov.sk.ca/crops). General and click on Grain Storage Considerations – FAQs.

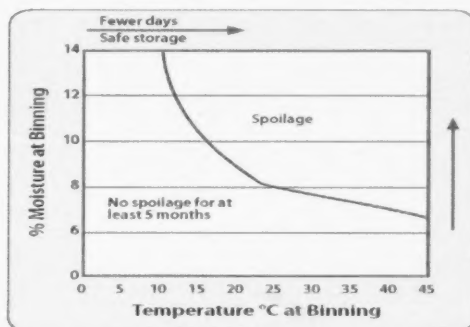


Figure 1: Canola Storage Time.

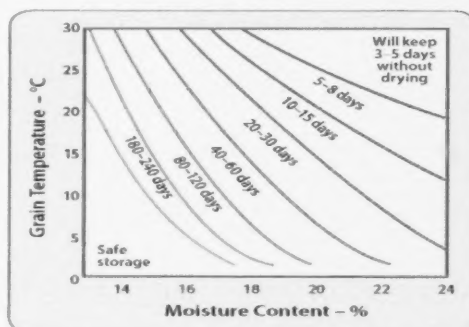


Figure 2: Cereals Safe Storage  
Friesen and Humnicki, 1987.

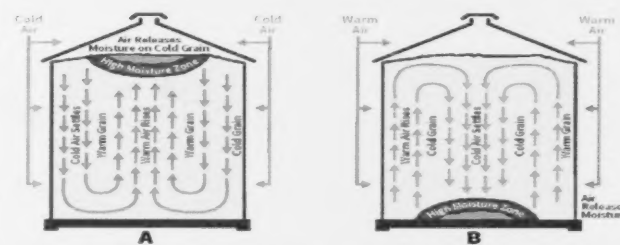


Figure 3: Moisture migration patterns in cold and warm periods.

# Profile: Saskatchewan Pulse Growers

Saskatchewan is at the heart of the Canadian pulse industry. With approximately 18,000 pulse growers and 95 special crop processors in Saskatchewan, the sector plays a significant role in the overall fortunes of the province's agricultural industry.

In 2013, Saskatchewan's farmers grew 96 per cent of Canada's lentil crop, 99 per cent of its chickpea crop and 64 per cent of its dry pea crop.

Representing the interests of pulse growers is the Saskatchewan Pulse Growers (SPG). This not-for-profit organization supports the industry through research, market development and communications.

"Each year, we invest approximately 60 per cent of our budget into research and development (R&D)," explained SPG director Carl Potts. "This research assists in the growth and sustainability of Saskatchewan's pulse industry as a whole."

SPG has been funding research projects since 1984 and much of the funding has been targeted at plant breeding, culminating in the development of the Pulse Breeding Program in 1997.

Through the Pulse Breeding Program, pulse growers in Saskatchewan have ongoing royalty free access to new varieties. Commercialization of pulse varieties also occurs under the SPG Variety Release Program. SPG also has an R&D program focused on genetic improvement, optimizing agronomic practices and end-use processing utilization. The goal of these programs is to provide plant breeders with the tools and information necessary to produce superior breeding lines and crop varieties to release to pulse growers, keeping the Saskatchewan industry growing and competitive.

SPG also collaborated with other provincial pulse grower groups, the National Science and Engineering Research Council (NSERC), Saskatchewan Agriculture and other groups to fund selected pulse projects. ■

FOR  
MORE  
INFO

Visit the Saskatchewan Pulse Growers' website at [www.saskpulse.com](http://www.saskpulse.com).

## Thousand kernel weight adds precision to your seeding

Mitchell Japp, MSc, PAg  
Provincial Specialist, Cereal Crops  
Crops and Irrigation Branch

The thought of counting and weighing 1000 seeds might appear daunting, but fortunately, seeding by thousand kernel weight (TKW) is relatively easy. The math is simple and the precision TKW can provide in your seeding rates is agronomically and financially rewarding.

Thousand kernel weight, sometimes called seed weight, should not be confused with test weight, also known as bushel weight. Thousand kernel weight is simply the weight of 1000 seeds; test weight is a measurement of seed density.

Thousand kernel weight varies between varieties, but also varies from year-to-year and field-to-field, regardless of variety. As a result, seeding by weight or volume can result in seeding too heavily or lightly. Seeding by TKW is a good agronomic practice, allowing precision in seeding rates that will maintain the crop's competitive ability, encourage even maturity and optimize crop yield.

For example, the seeding rate of two-row barley with a target of 250 plants per square metre and a TKW of 40 grams would be more than half a bushel per acre less than if the TKW was 50 grams. Seeding by volume or by weight may lead to seeding too heavily or lightly—depending on the TKW—resulting in a plant population that is outside the optimal range, compromising some of the crop's potential.

Determining TKW can be done by counting and weighing 1000 seeds or at a seed lab for a relatively low cost—around \$15 or less than 10 cents

per acre on a quarter section. Although there is no requirement for TKW, certified seed retailers will often provide a TKW.

Using TKW to determine seeding rates requires a target plant population and germination and seedling mortality rates. Expected seedling survival is the germination rate less losses to additional seedling mortality. The adjacent formula can be used to determine seeding rate:

### Seeding rate using TKW

$$\begin{aligned} &\text{Seeding rate (kg/ha)} \\ &= (\text{target plant population/m}^2 \\ &\quad \times \text{TKW in grams}) \\ &\div \text{expected seedling survival} \\ &\quad (\text{decimal format}) \\ &\div 100 \end{aligned}$$

Seeding by TKW is relatively easy to do and allows growers to know precisely what is going into the ground so seeding rates and costs can be managed with precision. Seeding with precision will encourage good weed competition from the crop and even maturation, while making the most effective use of the seed input cost. ■

FOR  
MORE  
INFO

Contact Mitchell Japp, Provincial Specialist, Cereal Crops, at 306-787-4664 or [mitchell.japp@gov.sk.ca](mailto:mitchell.japp@gov.sk.ca).

# Horse health: focus on Equine Infectious Anemia and West Nile Virus



Dr. Betty Althouse, DVM  
Chief Veterinary Officer  
Livestock Branch

Spring brings warmer weather and more opportunities to get outside with your horses. Working with a veterinarian to develop a horse health and disease prevention plan that includes vaccination, deworming and biosecurity can help keep your horses healthy. In Saskatchewan, there are two diseases that deserve some extra attention this spring: Equine Infectious Anemia and West Nile Virus.

Equine Infectious Anemia (EIA), also known as swamp fever, is spread by infected blood in biting flies, like horse flies, or through shared needles. Horses that appear healthy can be carriers of the EIA virus. Infected horses can develop severe anemia, weight loss and die from this disease. EIA is a federally reportable disease and cases must be reported to the Canadian Food Inspection Agency for control activities. However, testing is voluntary. In the past several years, multiple cases have been found in Saskatchewan with up to 70 per cent of horses in a herd infected. Positive horses taken to horse shows and races put other horses at risk. The most effective way to control this disease is through testing to identify positive horses. It is recommended that racing associations, horse shows and

events and stables have policies in place whereby only horses with a negative EIA test certificate can enter the site. This helps protect all horses that co-mingle. In addition, ask for a negative EIA test certificate as a condition of sale before purchasing a horse.

West Nile Virus (WNV) is spread by mosquitoes and can affect birds, horses and people. Both people and horses can suffer severe neurological effects from the disease. Fortunately for horses, there is an effective preventative vaccine available. Last year, there were 17 cases of WNV neurological disease diagnosed in Saskatchewan horses, and this number has been going up each year. Many affected horses were euthanized or had prolonged recovery without maintaining full former use. Vaccination protects your horse.

When you are discussing spring herd health with your veterinarian, be sure to ask about WNV vaccination and EIA testing. Once you know your own horse is EIA negative, insist that other horses you may mix with this summer are also negative. Help keep Saskatchewan horses healthy. ■

## FOR MORE INFO

On WNV, visit [www.agriculture.gov.sk.ca/West\\_Nile\\_Virus\\_Horses](http://www.agriculture.gov.sk.ca/West_Nile_Virus_Horses)  
On EIA, visit [www.inspection.gc.ca/animals/terrestrial-animals/diseases/reportable/eia/eng/1329698749489/1329703176989](http://www.inspection.gc.ca/animals/terrestrial-animals/diseases/reportable/eia/eng/1329698749489/1329703176989).

# Communication the key to successful federal community pasture transition



Brant Kirychuk  
Manager, Leasing and Sales  
Lands Branch

The transition of more than 1.6 million acres of land in 61 community pastures from federal to provincial administration, and then to patron management is a large and complex undertaking. The process requires coordination and communication with the federal government, patron entities and third-party users.

A priority is keeping open lines of communication. Lands Branch staff are in communication almost daily with their federal government counterparts. Ministry staff are attending patron meetings, and following up by phone or email. Farm Business Management Specialists have been working with patron groups on business planning and accessing program funding. The Forage Specialists are available to assist patron groups with range management. Communication is critical as the process is complex and a common understanding is required.

The patrons play a key role in this transition, as they must develop the model that works for them to take on the management of these lands. Through a series of meetings in February 2013 patrons brought forth a

number of concerns and suggestions. Based on this feedback, policy changes were implemented including: allowing the use of the infrastructure at no cost, providing it is maintained; increasing the lease term from five to 15 years; and facilitating the purchase of the bull battery located on the pastures.

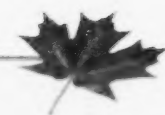
The transition has required a balanced approach giving consideration to current grazing leases and co-op pastures as well as to historical users of the pastures. Thus the rental structure and municipal tax responsibilities that are in these leases mirror what exists in other grazing leases the

Ministry administers. The manner in which we calculate the rates has been endorsed during consultations with stakeholders over the last year. We have an obligation to be fair to all producers who use agricultural Crown land. The federal pasture lands have traditionally been used by hunters and these long-time users do not want to lose this access. Accordingly, hunters are the only users that have specific access provisions; all other users must have the consent of the patron group before accessing the land.



This undertaking is nearly unprecedented in this province in regards to the transfer of tenure and management of land. While the process has not been without its challenges, it is proceeding as pastures have transitioned to provincial administration and leases signed with patron entities. ■

# Program launched to subsidize cost of commercial colostrum pasteurizers



## Growing Forward 2

A federal-provincial-territorial initiative



Dr. Wendy Wilkins, DVM  
Disease Surveillance Veterinarian  
Livestock Branch

We all know that the milk we buy from the grocery store for our families is pasteurized. Pasteurization is the method of heating milk to kill disease causing organisms and improve human health. The pasteurizing of milk has saved millions of lives all over the world. Milk pasteurizers have become recognized as a valuable tool for improving the quality of milk fed to calves on dairy farms for the same reason—healthier milk means healthier calves.

More recently, commercial colostrum pasteurizers were introduced to the market. These units pasteurize small batches of colostrum, killing harmful bacteria while maintaining quality of the antibodies in colostrum. Holding the colostrum at 60 C for 60 minutes effectively kills *Mycobacterium avium* subsp. *paratuberculosis*, the organism that causes Johne's Disease in cattle. It also kills other bacteria that can cause disease in the young calf, such as *Salmonella*, *E. coli* and *Clostridia*.

The Ministry of Agriculture has been working with provincial livestock stakeholders to develop biosecurity programs that meet the needs of the industry and the public. One such program, funded under Growing Forward 2, is the Saskatchewan Dairy Biosecurity Program. This program provides funding to producers to offset the cost of purchasing colostrum pasteurization units by reimbursing up to 50 per cent of the cost of the unit (to a maximum of \$5,000 per producer).



To date the pasteurizer program has been well received by Saskatchewan dairy producers.

This program started March 2014 and runs until December, 2014 or until the available funding has been used. Applications are accepted on a first-come, first-served basis and the program is administered by SaskMilk.

The program has been well received with 24 pasteurizers being purchased to date. Producers can apply to this program by contacting Deb Hauptstein at SaskMilk in Regina at 306-721-9486. ■

FOR  
MORE  
INFO

Contact Dr. Wendy Wilkins, Disease Surveillance Veterinarian,  
at 306-798-0253 or [wendy.wilkins@gov.sk.ca](mailto:wendy.wilkins@gov.sk.ca).

# Reducing injury hazards is first step in preventing footrot



Sean Thompson, MSc, AAg  
Regional Livestock Specialist, Watrous  
Regional Services Branch

Cow productivity during the summer months relies heavily on the ability to graze. Performance can be significantly set back due to mobility issues, with the most common pasture lameness attributed to footrot. The causes of footrot can be attributed to physical damage or softening of the skin between the hooves through continuous exposure to wet conditions, which allows an entry point for the bacteria *Fusobacterium necrophorum*. This is characterized by swelling and lameness in one or more feet. It is important to note there are other causes of lameness in cattle on pasture such as sand cracks, sprains, or digital dermatitis. Ensure that the problem is footrot before starting treatment, as the course of treatment will differ for each ailment.

*F. necrophorum* can be found in soil, but is also produced by the rumen and excreted in manure. Bacterial populations can also be high in areas such as a water source or shelter spot where cattle congregate. Potholes and rocks that line stream banks create an uneven surface that can be

a hazard for puncture injuries, while the wet conditions favour bacterial growth. Gravel and crop stubble can also cause points of entry for the bacteria. The bacteria are shed by infected animals so it is important to treat footrot immediately to control transmission.

Reducing the potential for foot injury and keeping the hoof dry are the most effective methods for preventing footrot. If possible, limit the access of cattle to natural waterways and use alternative watering sources such as a portable trough system or underground piping.

Additionally, the trace minerals zinc and iodine have been shown to affect both hoof and skin tissues. Use of chelated minerals may improve the uptake of zinc and iodine, decreasing the incidence of foot injuries. In general, a balanced mineral program will support good overall cell integrity and immunity. While some recent vaccines have been developed as a preventative measure against footrot, the results have been variable and you should consult your veterinarian before choosing this option. ■

FOR  
MORE  
INFO

Contact the Regional Livestock Specialist at your nearest  
Saskatchewan Agriculture Regional Office; or  
Call the Agriculture Knowledge Centre at 1-866-457-2377.

# Controlling hydrogen sulfide emissions from swine operations

Gases and odours emitted from pig production operations is a public concern associated with the swine industry. With the help of funding provided by the Saskatchewan Agriculture Development Fund (ADF), Sask Pork, Alberta Pork and Manitoba Pork, a research team involved in a 2009 study aimed to assess the feasibility of a bio treatment process developed in the oil industry to address this concern.

Reducing the amount of hydrogen sulfide ( $H_2S$ ) in swine operations is a public safety matter. Exposure to hazardous levels of  $H_2S$  has been cited as the cause of death in various fatalities at swine operations. The concentration of  $H_2S$  in some swine operations can spike to more than 100 parts per million during certain manure handling activities, which can pose immediate danger to life and health of those exposed. Not only are high concentrations of  $H_2S$  dangerous for humans, but the emitted gas can hasten corrosion of reinforced concrete, and other structures such as slatted floors and manure channels.

In previous experiments, researchers found that the application of metabolic inhibitors to swine manure in a closed system decreased the level of  $H_2S$  from 1500 parts per million to 50 parts per million. However, in order to replicate these results in open-air environments such as a barn, further experiments had to be conducted. Also, the effect of the treatment on manure nutrient properties had to be evaluated to assess any environmental impacts.

Phase one of the experiment consisted of the isolation, enrichment and characterization of the bacterial culture. This included isolating the indigenous bacterial species in manure slurry and assessing its ability to metabolize and remove  $H_2S$ . Phase two consisted of a semi-pilot and room-scale evaluation of the treatment to determine the impact of the treatment on emissions and manure nutrient properties.

In the research, experiments on the effects of manure age on  $H_2S$  emissions and the levels of nitrite and molybdate required for effective control of these emissions were conducted. The research shows that, in a closed environment, the emissions of  $H_2S$  depended on manure age, with fresh manure emitting the highest levels of  $H_2S$ , and manure that was one to six months old having the lowest levels of  $H_2S$ . This finding was contrary to the expected trend that as manure aged in storage, more  $H_2S$  will be subsequently generated. Also, the level of nitrate required to lower those emissions decreased as the manure got older.

The results of the study show that applying molybdate to swine manure was an effective way to control the emission of  $H_2S$ . The extent of this effect depended on the age of the manure, and the researchers noted that an increase in manure age led to lower  $H_2S$  emissions. The addition of nitrite initially led to lower levels of  $H_2S$ , but its effects were only temporary and not as persistent as molybdate which maintained a low level of  $H_2S$  over an

extended time period of at least six months. While the combined addition of nitrite and molybdate had an effect on the emission of  $H_2S$  from aged manure, this effect was not evident on fresh manure. It is important to note that while the treatment reduced levels of  $H_2S$  in commercial swine barns, the treatment was not effective at lowering levels of ammonia and carbon dioxide. The researchers also noted that a cost study for a typical 300 sow-operation (7500 finished pigs per year) indicated that costs associated with the treatment application amounted to less than one per cent of the total costs associated with a complete growth cycle, making the treatment process financially sound. In terms of the environmental impacts of the treatment, tests showed that the soils exposed to treated and untreated manure did not have levels of molybdenum that could cause potential toxicity to both plants and grazing animals.

Because high levels of  $H_2S$  are encountered mainly during manure handling activities, such as pulling pit plugs to drain manure slurry from underfloor pits, the researchers suggested that the addition of nitrite and molybdate should be carried out 24 to 48 hours before carrying out activities that could potentially generate high  $H_2S$  levels. It is also beneficial to apply the treatment during this time period because nitrite instantly decreases levels of  $H_2S$ , but only for a short time period.

While both applications of the nitrite and molybdate were effective in reducing gaseous emissions, the molybdate was especially important as it maintained the low levels of  $H_2S$  for up to six months, while the effects of the nitrite were only temporary. Because of this, only the molybdate was used in the open semi-pilot scale system and room scale tests.

The research proved that an application of a molybdate and nitrite treatment to swine manure is an effective way to reduce  $H_2S$  emissions in a commercial swine operation.

The Agriculture Development Fund provides funding to institutions, companies and industry organizations to help them carry out research, development and value added activities in the agriculture and agri food sector. The results produce new knowledge, information and choices in technologies, techniques and varieties for farmers, ranchers, processors and input suppliers, to improve the competitiveness of Saskatchewan's agriculture sector.

In 2014, the Saskatchewan Ministry of Agriculture and Agriculture and Agri-Food Canada committed \$11.2 million in new funding for 73 ADF research projects through Growing Forward 2, a federal-provincial-territorial initiative. ■

**Reducing the amount of hydrogen sulfide ( $H_2S$ ) in swine operations is a public safety matter.**

**FOR MORE INFO**

Visit the Saskatchewan Agriculture research reports page at [www.agriculture.gov.sk.ca/ADF/Search](http://www.agriculture.gov.sk.ca/ADF/Search) and enter the report number #20060133 into the search function.



*Manure compost windrow being turned.*

# Saskatchewan launches provincial rabies program

by Dr. Wendy Wilkins, DVM  
Disease Surveillance Veterinarian  
Livestock Branch

The Canadian Food Inspection Agency (CFIA) has withdrawn from national rabies programming. As of April 1, 2014, it no longer collects, processes or ships specimens for rabies testing, or engages in any animal health response activities for animals believed to be rabid, or believed to have come in contact with a rabid animal.

To continue to protect the health and safety of the Saskatchewan human and domestic animal populations, a provincial rabies response program has been developed through a collaboration between the Ministry of Agriculture and the Ministry of Health. Under this program, private veterinarians across the province will collect samples from suspect animals and submit these for rabies testing under direction from the program's Rabies Risk Assessment Veterinarian (RRAV). Test results will be reported back to the submitting veterinarian and to the RRAV, who will ensure that test results are further distributed to all relevant parties. The RRAV will also coordinate any response and follow-up activities necessary in the event of a positive rabies test result.

If a domestic animal (pet or livestock) is suspected of having rabies, the local veterinarian should also be contacted. If a wild animal is suspected

Anyone who suspects that an animal may be carrying rabies should contact the Saskatchewan Provincial Rabies Response Program at 1-844-7-RABIES (1-844-772-2437).

of having rabies, the local conservation officer should be contacted for advice on animal control options. Whenever possible, the wild animal should be retained for testing. Conservation officers can be reached through the Ministry of Environment's toll free line at 1-800-667-7561.

In the event that someone is scratched or bitten by the suspect animal, the affected area should be washed immediately with soap and warm water and the victim taken to a primary health care provider or local emergency room as soon as possible. For more information on dealing with animal bites, call the Saskatchewan HealthLine by dialing 811. ■

FOR  
MORE  
INFO

Contact Dr. Wendy Wilkins, Disease Surveillance Veterinarian, at 306-798-0253 or [wendy.wilkins@gov.sk.ca](mailto:wendy.wilkins@gov.sk.ca).

## Crop Protection Lab: Helping producers grow healthier crops



Cecilia Peluola, Ph.D., P.Ag.  
Supervisor, Crop Protection Laboratory  
Crops and Irrigation Branch

Saskatchewan Agriculture's Crop Protection Laboratory at 346 McDonald Street in Regina provides producers with diagnostic services on most crop health issues. The lab receives samples from the Ministries of Agriculture and Environment, or from individual growers, crop insurance adjusters, agribusiness representatives and market/home gardeners.

The Crop Protection Laboratory provides diagnostic services for a fee in the following areas:

- **Diseases and Disorders.** Testing is done for diseases caused by fungi, bacteria, viruses, phytoplasmas, chemical injury and environmental

issues. Diagnosis of fungal plant diseases is performed primarily through assessment of plant symptoms, visual microscopic examination and isolation of fungal organisms on artificial media. Viral and bacterial diagnoses are based on visible signs and symptoms. Enzyme-linked Immunosorbent Assay (ELISA) testing is available to identify wheat streak mosaic virus (WSMV).

- **Insect and weed identification.** Samples of unknown weeds or insects encountered during the growing season are submitted for visual identification and are processed using diagnostic keys.
- **Herbicide resistance.** Testing is carried out on any air-dried weed seeds suspected of escaping herbicide treatment during the growing season. Most groups of herbicides and different weed seeds can be tested. Testing at the laboratory is done in collaboration with Agriculture and Agri-Food Canada.

### New technology at the lab

Recent upgrades to the Crop Protection Lab included the addition of technology to perform polymerase chain reaction (PCR) testing. PCR technology has the potential to improve or replace a wide variety of diagnostic techniques used at the lab. Currently, it is being used to diagnose samples collected by the provincial crop disease surveys. In the future, it may be used to diagnose other major plant diseases in Saskatchewan. ■

FOR  
MORE  
INFO

And for lab diagnostic request forms:  
Visit [www.agriculture.gov.sk.ca/Crop\\_Protection\\_Lab](http://www.agriculture.gov.sk.ca/Crop_Protection_Lab)  
or call 1-306-787-8130.



Dr. Peluola and Plant Technician Sharla Lozinsky prepare samples for PCR testing.

# Insect monitoring programs in 2014

Scott Hartley, PAg  
Provincial Specialist, Insect and Vertebrate Pests  
Crops and Irrigation Branch

The Saskatchewan Ministry of Agriculture collaborates with Agriculture and Agri-Food Canada, the Saskatchewan Crop Insurance Corporation, the Canola Council of Canada, individual farmers and industry agrologists to monitor major insect pests in Saskatchewan.

The information collected through these surveys is used to generate forecast maps that indicate potential insect problems. This data allows us to determine if an economically harmful insect is present in a region, track insect expansion into new areas and assist in research projects. This information is also used by crop protection product distributors to ensure that products are in place and available for control of the pest.

The *Bertha Armyworm Monitoring Program* consists of approximately 125 cooperators reporting moth counts from approximately 200 sites across the province. The cooperators collect and report weekly moth counts from a pheromone-based trapping system that attract male moths. The reports are used to monitor population levels and produce weekly risk maps based on cumulative moth counts from June to early August.



Insect monitoring for bertha armyworm on canola.

*Diamondback Moth Monitoring* utilizes pheromone traps to detect the arrival of these migrating pests. Agriculture and Agri-Food Canada also monitors wind trajectories to identify wind currents favourable to bringing the moths onto the Prairies.

The *Grasshopper Survey* is conducted by Saskatchewan Crop Insurance field personnel in the fall. The survey reflects the number of adult grasshoppers capable of reproduction and egg laying. The data provides an estimate of potential risk from grasshoppers to crops in the following spring.

The *Wheat Midge Survey* is conducted in the fall. A risk map is generated based on the number of viable cocoons found in the soil and provides a general picture of existing densities and the potential for infestation in 2014.

Three more recent crop pests in Saskatchewan, the *Cabbage Seedpod Weevil*, *Pea Leaf Weevil* and *Swede Midge* are also being monitored. Field surveys are conducted in late spring and early summer and infestation maps are produced. ■

FOR  
MORE  
INFO

Contact your local Regional Crop Specialist or visit Saskatchewan Ministry of Agriculture website at: [www.agriculture.gov.sk.ca](http://www.agriculture.gov.sk.ca) and scroll down to the Shortcuts Section and link to the Maps Section.

## SCIC evolving with technology

New technology is evolving the way that agri business is conducted. Through mobile phones and tablets or social media, producers have access to a variety of tools. CropConnect and AgConnect are web applications that allow Saskatchewan producers to conduct their business online. With these applications, customers are able to access their program information easily and instantly while reducing the amount of paperwork. Whether it's reviewing and submitting AgriStability information on AgConnect, or entering insurance selections for Crop Insurance on CropConnect, Saskatchewan Crop Insurance Corporation (SCIC) is committed to providing beneficial tools for producers and their businesses. Technology is a part of our lives everywhere we go, and increasingly, it's a part of our businesses too.

### AgConnect

In 2012, SCIC launched AgConnect, a secure online tool for reviewing and submitting AgriStability information. With AgConnect, Saskatchewan producers and their accountants or farm preparers can instantly view historical program information and submit program forms without having all the paperwork. They can access Enrolment/Fee Notices, attach documentation and verify if program forms have been submitted.

AgConnect eForms are an online tool for submitting program information to SCIC. By using eForms you can reduce the need to file program information through traditional methods such as mail or fax, and you increase the likelihood of your program forms being processed sooner as the information arrives quicker to AgConnect. eForms give individuals, corporations, co-operatives and other entities the flexibility of completing and submitting both their tax (income and expense) and supplementary information to SCIC. AgConnect eForms are considered smart forms. They are designed to display error or correction messages when information is missing. This ensures all the required data is entered into eForms before it can be submitted to SCIC for processing. There is also an automatic save function that is a part of eForms, ensuring you will not lose what you had been working on if something happens to end a session.

### CropConnect

The successful launch of AgConnect paved the way for the redesign of CropConnect. Building on the positive response to AgConnect, CropConnect is designed to work with those Crop Insurance customers who want to conduct more of their business online and reduce or eliminate paperwork. CropConnect allows Crop Insurance customers the flexibility of providing program information online from a home computer or mobile device. The improved user experience makes it easier and intuitive for producers to use. With the improved tool you can enter insurance selections, estimate premiums with the insurance calculator, add or delete crops, select options and select the level of coverage.

In addition to selecting their coverage needs, customers can also fill out Seeded Acreage Reports and Production Declarations or file a post harvest claim. Seeded Acreage Reports can be completed for all of the land and crops you grow. At any time in the process, the tool allows you to save your information and print off a paper copy for your records. Customers can also view historical information on previously reported years.

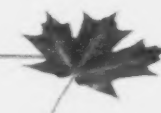
All customers would have received a letter in February of 2014 with instructions and an activation code for accessing CropConnect. If you misplaced this letter or are new to the program, visit your local Crop Insurance office or phone 1-888-935-0000 and a customer service representative will help you get started with CropConnect.

With technology constantly evolving in agriculture and producers adapting these methods to conduct business, it is important for SCIC to meet the growing demands of farmers and ranchers. CropConnect and AgConnect will provide quicker customer processing and is a convenient way for producers to conduct all their AgriStability and Crop Insurance business. ■

FOR  
MORE  
INFO

Contact your local Crop Insurance customer service office; Call 1-888-935-0000; or Visit [www.saskcropinsurance.com](http://www.saskcropinsurance.com).

# Producer groups receive funding to implement on-farm food safety programming



## Growing Forward 2

A federal-provincial-territorial initiative



Sandra Stanger  
Manager  
Financial Programs Branch

Under Growing Forward 2 (GF2), a federal-provincial-territorial initiative, seven provincial agricultural producer organizations are approved to receive more than \$1 million in 2014-2015 to assist producers with the implementation of industry-specific, nationally recognized, on-farm food safety systems.

Each group has been given the flexibility to tailor their programming and funding to suit their specific priorities while still meeting the terms of the GF2 initiative. Each commodity group is responsible for delivering their on-farm food safety program, including any educational and promotional

activities, and producer-directed funding. Producers are not required to be members of the associated commodity group to access the on-farm food safety programming offered by these groups.

Producers are provided specific training on commodity-related food safety systems through workshops and seminars, with some organizations also offering online training. In 2013-2014, more than 500 producers took training. Along with workshops and seminars, on-farm food safety is promoted at a number of industry events, by newsletters and on the web. Some groups also provide funding for technical advice, food safety related equipment and first certification audits. In 2013-2014, more than 70 producers accessed funding for implementation efforts. These efforts will be built upon in 2014-2015.

For information on specific on-farm food safety programming and funding available, contact the associated commodity group following:

COMMODITY	OFFS SYSTEM	PROVINCIAL DELIVERY AGENT
Beef cattle	Verified Beef Production Program	<b>SASKATCHEWAN QUALITY STARTS HERE/ VERIFIED BEEF PRODUCTION WORKING GROUP INC.</b> Coy Schellenberg, Provincial Coordinator Box 201, Beechy, SK S0L 0C0 Email: <a href="mailto:office@saskvbp.ca">office@saskvbp.ca</a> Website: <a href="http://www.saskvbp.ca">www.saskvbp.ca</a> Phone: 306-859-9110
Sheep	Food-Safe Farm Practices	<b>SASK. SHEEP DEVELOPMENT BOARD</b> Gordon Schroeder, Executive Director 2213C Hanselman Court Saskatoon, SK S7L 6A8 Email: <a href="mailto:gordsheepdb@sasktel.net">gordsheepdb@sasktel.net</a> Website: <a href="http://www.sksheep.com">www.sksheep.com</a> Phone: 306-933-5582
Dairy	Canadian Quality Milk Program	<b>SASKATCHEWAN MILK MARKETING BOARD</b> Deb Haupstein, OFFS Coordinator 444 McLeod St., Regina, SK S4N 4Y1 Email: <a href="mailto:deb.haupstein@saskmilk.ca">deb.haupstein@saskmilk.ca</a> Website: <a href="http://www.saskmilk.ca">www.saskmilk.ca</a> Phone: 306-721-9486
Potatoes Leafy vegetables and cruciferae Bulb and root vegetables Fruiting vegetables Asparagus, sweet corn and legumes	CanadaGAP	<b>SASK. VEGETABLE GROWERS' ASSOCIATION</b> Murray Gray, OFFS Program Contact Box 35, Aylsham, SK S0E 0C0 Email: <a href="mailto:m.d.gray@sasktel.net">m.d.gray@sasktel.net</a> Website: <a href="http://www.svga.ca">www.svga.ca</a> Phone: 306-862-3798
Greenhouse production	CanadaGAP	<b>SASK. GREENHOUSE GROWERS ASSOCIATION</b> Cheryl Lynn Walters, OFFS Coordinator Saskatchewan Greenhouse Growers Association PO Box 332, Grayson SK S0A 1E0 Email: <a href="mailto:saskgga@gmail.com">saskgga@gmail.com</a> Website: <a href="http://www.saskgreenhouses.com">www.saskgreenhouses.com</a> Phone: 306-794-2051
Small fruit Tree and vine fruit	CanadaGAP	<b>SASK. FRUIT GROWERS ASSOCIATION</b> Patty Stewart, Administrator Box 1107, Yorkton, SK S3N 2X3 Email: <a href="mailto:kp.stewart@yourlink.ca">kp.stewart@yourlink.ca</a> Website: <a href="http://www.saskfruit.com">www.saskfruit.com</a> Phone: 306-782-0256
Herbs and spices Natural products	Canadian Herb, Spice and Natural Health Product Coalition Good Agriculture and Collection Practices (CHSNC GACPP)	<b>SASK. HERB AND SPICE ASSOCIATION</b> Connie Kehler, Executive Director P.O. Box 7568, Station Main Saskatoon, SK S7K 4L4 Email: <a href="mailto:shsa@sasktel.net">shsa@sasktel.net</a> Website: <a href="http://www.saskherbspice.org">www.saskherbspice.org</a> Phone: 306-694-4622

# Events calendar

Date	Event	Location	Phone	Internet
May 10 – 11, 2014	Spring Youth Appaloosa Show	Golden Mile Exhibition Grounds Moose Jaw, SK	306-545-2567	<a href="http://www.saskapp.ca">www.saskapp.ca</a>
May 16 – 19, 2014	Band City Quarter Horse Show	Golden Mile Exhibition Grounds Moose Jaw, SK	306-641-4106	<a href="http://www.sqha.org">www.sqha.org</a>
May 21, 2014	Deadline to seed camelina in the brown soil zone. Deadline to seed all classes of chickpeas.		1 888 935 0000	<a href="http://www.saskcropinsurance.com">www.saskcropinsurance.com</a>
May 31, 2014	Deadline to provide production contact information to Crop Insurance, under the Contract Price Option.		1-888-935-0000	<a href="http://www.saskcropinsurance.com">www.saskcropinsurance.com</a>
June 11-13, June 16-18	Agricultural Operator Program – Module 2	Parkland College Yorkton, SK	1 866 783-6766	<a href="http://www.parklandcollege.sk.ca/programs">www.parklandcollege.sk.ca/programs</a>

## Leading by example



Shelley Jones  
Manager, Agricultural Awareness Unit  
Regional Services Branch

Given the close connection between them and the land, it is no surprise that farmers and ranchers are leaders when it comes to environmental stewardship. Producers' way of life depends on their ability to use land to grow food; it is in their best interests to protect it far into the future. The Ministry of Agriculture recognizes this issue's importance and is helping Saskatchewan farmers lead by example with an entire section of Growing Forward 2 (GF2) programming. The "Environment Chapter" of GF2 was created with the intention of improving both producer and public understanding of the possible environmental impacts of agriculture, and to encourage farmers to reduce their environmental footprint. This chapter also includes the development and updating of Environmental Farm Plans (EFPs).

Since 2005, farmers and ranchers have completed nearly 12,000 EFPs. Although tailored to each farm operation, there is still a common theme among EFPs: long-term sustainability. This theme is the motivator for

farmers and the driving force behind the EFPs. Whether it is stabilizing soil erosion by sowing more fragile land to grass, incorporating exclusion fencing and solar-powered watering systems to prevent livestock from entering water sources, or using variable rate fertilizer technology to target application rates to maximize plant utilization and minimize nutrient loss, Saskatchewan farmers and ranchers are walking the sustainability talk; the environment and their farms are both beneficiaries.

The Farm Stewardship Program recognizes the need for Saskatchewan farmers and ranchers to stay ahead of the curve when it comes to environmental best practices and offers financial incentives for them to continuously improve. These incentives were created on a cost share basis with reimbursements ranging from 30 to 75 per cent with a maximum payment cap of \$50,000 for the life of the program. Saskatchewan farmers and ranchers are encouraged to participate in this program and deserve recognition and praise for the work they have already done, and will continue to do, to take care of our environment. ■

FOR  
MORE  
INFO

Visit [www.agriculture.gov.sk.ca/GF2-EnvironmentalFarmPlan](http://www.agriculture.gov.sk.ca/GF2-EnvironmentalFarmPlan).